

- 1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2) Claim 120 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 120, there is no antecedent basis for "the first opposing side edge" (lines 27-28), "the second opposing side edge" (lines 35-36), "the first circumferential row" (lines 45 and 48) and "the second circumferential row" (line 46) and, as such, the scope of claim 120 is unclear.

- 3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

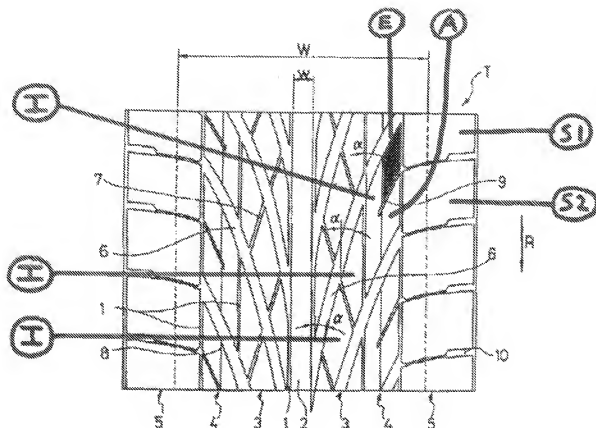
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Japan 612

- 5) **Claim 121 is rejected under 35 U.S.C. 102(b) as being anticipated by Japan 612 (JP 10-264612).**

The claimed tire is anticipated by Japan 612's tire. See Figure 1, abstract and machine translation. The tread of Figure 1 contains geometric module / ridge as claimed. In particular, the tire tread of Figure 1 has an elongated ridge, which (a) is bounded by two oblique grooves 6, 6 (each of which is inclined at inclination angle  $\alpha$  of 10-40 degrees (e.g. 20 degrees) with respect to the circumferential direction) and (b) is located between a first central circumferential groove 1 and a second shoulder circumferential groove 1. The first central circumferential groove 1 separates a circumferential center rib 2 and the elongated ridge and the second shoulder circumferential groove 1 separates the elongated ridge and a row 5 of shoulder blocks. The shoulder blocks are separated by transverse grooves which are inclined at illustrated angle of about 75 degrees with respect to the circumferential direction. As can be seen from Figure 1, two shoulder blocks are associated with each elongated ridge. The elongated ridge is divided into blocks by grooves (cuts) which are transverse to the oblique grooves. The tread also comprises sipes 8 (narrow grooves) which further divide the tread.

Applicant argues that Japan 612 fails to disclose an end block and auxiliary block. Applicant is incorrect. A marked up copy of Figure 1 of Japan 612 is provided below:



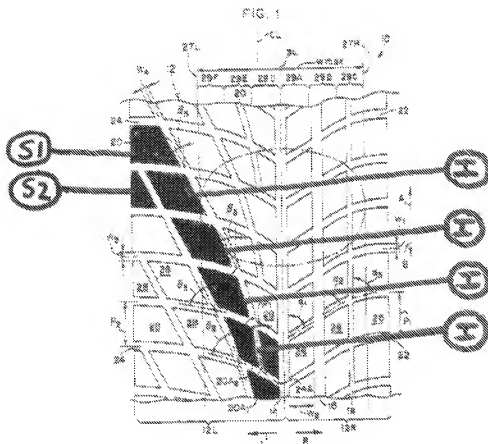
The markings were added to Japan 612's Figure 1 to facilitate discussion of Japan 612. "S1" and "S2" are shoulder blocks. "I" are intermediate blocks. "E" is an end block. "A" is an auxiliary block. As can be seen from Figure 1, Japan 612's tire tread comprises an "end block" and an "auxiliary block".

Fukunaga et al

6) **Claims 119 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukunaga et al (US 6,607,018) in view of Japan 508 (JP 05-301508).**

Fukunaga et al discloses a pneumatic tire with a tread wherein the tread of Figure 1 contains geometric module / elongated ridge as claimed. The claimed oblique grooves read on inclined grooves 20. The "geometric module" in Figure 1 contains two

shoulder blocks 28, 28, four intermediate blocks and two center blocks. Circumferential main groove 14 is spaced from the EP. The right side of Figure 1 contains a second circumferential portion comprising a shoulder block row and two circumferential rows of inner blocks. A marked up copy of Figure 1 of Fukunaga et al is provided below:



The markings were added to Figure 1 of Fukunaga et al to facilitate discussion of Fukunaga et al. "S1" and "S2" are shoulder blocks. "I" are intermediate blocks.

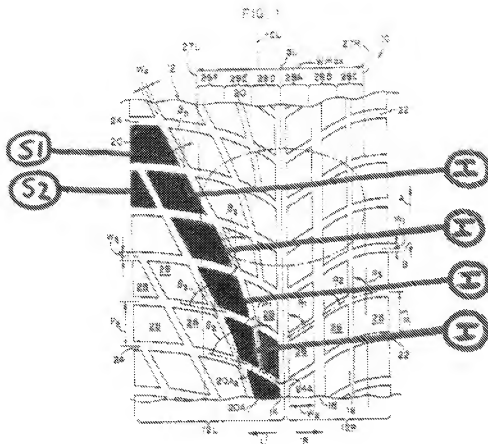
As to claim 119, it would have been obvious to one of ordinary skill in the art to provide the lateral grooves in the circumferential block rows of Fukunaga et al's tread (at the inboard side) such that the grooves separating the inner blocks of an inner row are

circumferentially offset with respect to the grooves separating the shoulder blocks in view of Japan 508's suggestion to slightly offset lateral grooves with respect to shoulder circumferential grooves (Figure 1) ; it being taken as well known / conventional per se in the tread art that circumferentially offsetting transverse grooves in one row relative to another row reduces noise. Fukunaga et al fails to teach away from reducing noise.

Applicant's argument that providing circumferentially offset grooves in Fukunaga et al would be contrary to the teachings of Fukunaga et al is not persuasive since (1) Fukunaga et al fails to teach that perfect alignment of the lateral grooves on the inboard side of the tread are required, (2) Japan 508 shows simultaneously offsetting lateral grooves and using gradually increasing angle for the lateral grooves (Figure 1) and (3) slightly circumferentially offsetting lateral grooves as per the disclosure of Japan 508 ensures that the lateral grooves form a *generally continuous* transverse groove.

**7) Claims 120 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukunaga et al (US 6,607,018) in view of Hutson et al (US 6,095,215).**

Fukunaga et al discloses a pneumatic tire with a tread wherein the tread of Figure 1 contains geometric module / elongated ridge as claimed. The claimed oblique grooves read on inclined grooves 20. The "geometric module" in Figure 1 contains two shoulder blocks 28, 28, four intermediate blocks and two center blocks. Circumferential main groove 14 is spaced from the EP. The right side of Figure 1 contains a second circumferential portion comprising a shoulder block row and two circumferential rows of inner blocks. A marked up copy of Figure 1 of Fukunaga et al is provided below:



The markings were added to Figure 1 of Fukunaga et al to facilitate discussion of Fukunaga et al. "S1" and "S2" are shoulder blocks. "I" are intermediate blocks.

As to claim 120, it would have been obvious to one of ordinary skill in the art to provide the lateral grooves in the circumferential block rows of Fukunaga et al's tread (at the inboard side) such that (A) the grooves separating the inner blocks of a first inner row are circumferentially offset with respect to the grooves separating the blocks of a second inner row and (B) the grooves separating the inner blocks of the first inner row are circumferentially offset with respect to the grooves separating the shoulder blocks in view of Hutson et al's suggestion to provide blocks in a tire tread such that (A) grooves

separating intermediate blocks of an intermediate row (first inner row) are slightly circumferentially offset with respect to the grooves separating the central blocks of a central row (second inner row) and (B) the grooves separating the intermediate blocks of the intermediate row (first inner row) are circumferentially offset with respect to the grooves separating the shoulder blocks; it being taken as well known / conventional per se in the tread art that circumferentially offsetting transverse grooves in one row relative to another row reduces noise. Fukunaga et al fails to teach away from reducing noise.

Applicant's argument that providing circumferentially offset grooves in Fukunaga et al would be contrary to the teachings of Fukunaga et al is not persuasive since (1) Fukunaga et al fails to teach that perfect alignment of the lateral grooves on the inboard side of the tread are required and (2) Hutson et al shows simultaneously offsetting lateral grooves and using gradually increasing angle for the lateral grooves (Figure 1), and (3) slightly circumferentially offsetting lateral grooves as per the disclosure of Hutson et al ensures that the lateral grooves form a *generally continuous* transverse groove.

#### **Allowable Subject Matter**

- 8) **Claims 60-64, 67-81, 83-92 and 97-118 are allowed.**

#### **Remarks**

- 9) Applicant's arguments filed 7-23-10 have been fully considered but they are not persuasive. Applicant's arguments are addressed above.

With respect to applicant's description on page 23 of the amendment filed 7-23-10 of the interview on 4-7-10, examiner comments "INTERVIEW RECORD OK".

The remaining references are cited of interest.

10) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven D. Maki/  
Primary Examiner, Art Unit 1791

Steven D. Maki  
November 8, 2010